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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/697,367	10/30/2003	Manish Sharma	100201070-6	7900
7590	11/19/2004		EXAMINER	
HEWLETT-PACKARD COMPANY Intellectual Property Administration P.O. Box 272400 Fort Collins, CO 80527-2400			HO, HOAI V	
			ART UNIT	PAPER NUMBER
			2818	

DATE MAILED: 11/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/697,367	SHARMA ET AL.
	Examiner Hoai V. Ho	Art Unit 2818

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 13 October 2004.  
 2a) This action is **FINAL**.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 13-17 and 20-24 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 13-17,20,21,23 and 24 is/are rejected.  
 7) Claim(s) 22 is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 30 October 2003 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____	6) <input type="checkbox"/> Other: _____

***Response to Amendment***

1. This office action is responsive to communication(s) filed on July 30, 2002.
2. Claims 13-17 and 20-24 are presented for examination including new additional claims 22-24.

***Claim Objections***

3. Claims 22 and 23 are objected to because of the following informalities:

Is claim 22 dependent on claim 21 instead of the canceled claim 11? Appropriate correction is required.

Claim 23 is also objected due to the objection of its parent claim.

For the examination, claim 22 will be treated as depending on claim 21.

***Claim Withdrawn***

The indicated allowability of claim 14 is withdrawn in view of the newly discovered reference(s) to Ellis. Rejections based on the newly cited reference(s) follow.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 13-17, 20, 21, and 24 are rejected under 35 U.S.C. 102(ab) as being anticipated by Christeson U. S. Patent (USP) No. 6622243 in view of Ellis US Pub. No. 2002/0087886.

As per claims 13, 14, 17, 20, 21, and 24, Figure 1 of Christeson is directed to a memory back-up system comprising: a volatile memory cell (101); a non-volatile memory cell (102) that is interfaced with the volatile memory cell; a common control line (104) connected to the volatile memory cell and the non-volatile memory cell, the common control line allowing data to be simultaneously written to the volatile memory cell and the non-volatile memory cell (col. 3, lines 21-29).

Christeson is silent about the non-volatile memory cell being integrated with the volatile memory cell; and the non-volatile memory cell is an MRAM memory cell and the volatile memory cell is a DRAM memory cell. However, Figure 10C and a paragraph [0107] of Ellis disclose the non-volatile memory cell being integrated with the volatile memory cell; and the non-volatile memory cell is an MRAM memory cell and the volatile memory cell is a DRAM memory cell. It would have been obvious to a person of ordinary skill in the art at the time invention was made to recognize that Christeson could have the MRAM non-volatile memory cell being integrated with the DRAM volatile memory cell as taught by Ellis in order to improve the efficient operation of the microprocessor in the computer system.

As per claim 15, Christeson is silent to disclose further comprising a second control line which in combination with the common control line provides selection of the volatile memory cell. However, this feature is seen to be an inherent teaching of the device since a means for providing a process of the system is disclosed and it is apparent that some type of control lines such as a control word line or control column line must be present to select the volatile memory cell for the system to function as intended. For example, Christeson in column 2, lines 45-47 discloses that the volatile memory cell is a random access memory device, whose memory

cell location needs the control word line and control column line to select the memory cell location as being understood by those skilled in the art.

As per claim 16, Christeson is silent to disclose further comprising a third control line which in combination with the common control line provides selection of the non-volatile memory cell. However, this feature is seen to be an inherent teaching of the device since a means for providing a process of the system is disclosed and it is apparent that some type of control lines such as a control word line or control column line must be present to select the non-volatile memory cell for the system to function as intended. For example, Christeson in column 2, line 48 discloses that the non-volatile memory cell is a flash memory device, whose memory cell location needs the control word line and control column line to select the memory cell location as being understood by those skilled in the art.

#### **Allowable Subject matter**

6. Claims 22 and 23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter:

Claims 22 and 23 include allowable subject matter since the prior art made of record and considered pertinent to the applicant's disclosure, taken individually or in combination, does not teach or suggest the claimed invention having where in a single word line WL is connected to both the first memory cell and the non-volatile memory cell.

8. The prior art made of record and not relied upon is considered pertinent to applicants' disclosure. Meister et al. (USP 6798334) discloses a smart card including an integrated memory circuit in col. 3, lines 49-61.

***Response to Arguments***

9. Applicant's arguments with respect to claims 13-17, 20, 21 and 24 have been considered but are moot in view of the new ground(s) of rejection.

Applicants argue the non-volatile memory cell being integrated with the volatile memory cell; and the non-volatile memory cell. The Examiner agrees with the applicants that Christeson does not teach this limitation. However, in view of the new ground of rejection, Figure 10C and a paragraph [0107] of Ellis disclose the non-volatile memory cell being integrated with the volatile memory cell.

For the above reasons, it is believed that the rejections should be sustained. Feature of an invention not found in the claims can be given no patentable weight in distinguishing the claimed

10. Applicants' amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicants are reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for response to this final action is set to expire THREE MONTHS from the date of this action. In the event a first response is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event will

the statutory period for response expire later than SIX MONTHS from the date of this final action.

11. When responding to the office action, Applicants are advised to provide the examiner with the line numbers and page numbers in the application and/or references cited to assist the examiner to locate the appropriate paragraphs.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hoai V. Ho whose telephone number is (571) 272-1777. The examiner can normally be reached on 7:00 AM -- 5:30 PM from Monday through Thursday from Monday to Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached on (571) 272-1787. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
hvh  
November 16, 2004

  
Hoai V. Ho  
Primary Examiner  
Art Unit 2818